

Approved Minutes of the Technical Advisory Committee Meeting
June 27, 2008

Members present: Roger Thompson Laura Pelosi
Steve Revell Gail Center
Craig Heindel Jeffrey Williams
Rodney Pingree

Others present: Anne Whiteley Gary Schultz
David Loveday Alan Bookspan
John Kiernan Tim Ryan
Peter Boemig Gary Adams
John Beauchamp Claude Chevalier
Bruce Douglas Christine Thompson

Scheduled meetings:

July 22, 2008	1-4 PM	Room 107 Stanley Hall
August 19, 2008	1-4 PM	Room 100 Stanley Hall
September 16, 2008	1-4 PM	Room 107 Stanley Hall

Review of minutes

The draft minutes for the May 20, 2008 meeting were accepted as drafted.

Water Treatment Systems

Commissioner Pelosi gave a brief overview of the input she is looking for as she decides what changes in the existing requirements related to the installation of water treatment system should be made. There is a general inclination to minimize the requirements for single family homes on their own individual lots that are served by an individual water supply. This might include a combination of outright exemption, conditional exemption, and/or issuance of an individual permit. The goal is the minimum of regulation possible while ensuring that public health protection is maintained.

Anne did a short history of the Rule revisions that occurred in 2005 when the boundaries between what designers who are also professional engineers can do in comparison to designers who are not professional engineers so that those who are not regular attendees of the TAC meetings would have the background. The final decisions related to the 2005 Rule revisions were made at the Legislative Committee on

Administrative Rules (LCAR) hearings and therefore did not have the extensive public review that most of the Rule changes did have. Because the vast majority of water treatment systems are installed on systems serving only single family residences that were, prior to July 1, 2007, unregulated, the affect on landowners and those installing water treatment systems was not immediately apparent.

Anne noted that the statutory definition of potable water supply explicitly includes water treatment systems, therefore a Rule change is required in order to create either an outright exemption or a conditional exemption.

Anne also reviewed the decisions made at previous meeting and reconfirmed that those attending the meeting agreed that treatment systems that are designed solely to, and actually do, treat only hardness and other secondary standards should be granted an outright exemption from the Rules. These systems would still be subject to the Vermont Plumbing Rules and those people hired to install these systems must hold the appropriate Plumbing License. There was not full consensus on treatment systems for pathogens or primary standards. There was majority agreement for an exemption for pathogen treatment for water systems that serve only one single family residence on its own individual lot. There was tentative agreement that a conditional exemption might be useful for other treatment systems, that there should be a checklist that might be filed on the municipal land records in lieu of a permit, and that a maintenance contract might be important to ensure continued operation of the treatment systems.

Alan noted that some people want to add treatment systems to municipal water systems even though the water system is providing water that meets all of the drinking water standards. This is often related to removal of chlorine and other disinfectants but may also be used to treat other taste and odor issues.

TAC then moved to discuss the issue of who should be allowed to design treatment systems that remain subject to the Rules and require either a permit or a conditional exemption.

David Loveday, representing the Water Quality Association (WQA), reviewed the role that WQA has in other states. WQA can do certification of products under NSF standards as well as issuing its own approvals for equipment. WQA certification of designers/installers is accepted in Texas. Other states are considering this but only Texas has agreed at this time. There are about 1800 designers currently certified by WQA. There are continuing education requirements that must be met every three years. There is a lot of chemistry knowledge required in order to become WQA certified. There are about 8 people currently certified in Vermont.

Tim asked how much it cost to become certified. The cost of the test and course materials is about \$300-\$400. The testing could be done in Vermont if desired.

The issue of getting continuing education was a concern of several attendees. Steve asked if some the training by the Vermont Rural Water Association might be accepted.

John said that expanding the access to the continuing education courses was important as travel to distant out of state locations made keeping up on training difficult and expensive.

Treatment for pathogens for sources supplying other than only one single family residence

1. Should an evaluation of the water supply be required prior to installation of a treatment system? Yes 15 No 0
2. Should this be done subject to a permit or with a conditional exemption? No vote taken.
3. Who should be allowed to do the evaluation?

Peter said that a professional engineer should certify the design. Gary Adams said that in his experience engineers did not come out to the site and give an answer as to what should be done. Peter agreed, but said that an engineer should not give an instant answer in all cases. Some cases require research in the best options.

Gary Adams said that WQA certification might be sufficient but that Vermont should have its own training and certification process.

Alan noted that engineers design the system but they do not know the flow rates of the various models of treatment system. Gary Adams only specifies NFS certified equipment.

Jeff said that he did not object to engineers being involved in the design process he thinks it is important to know where the problem starts because treatment is only used after the source is examined. Once that is done there are plug and play systems, but the big issue is evaluating the source.

Alan said that understanding the geology is not very important. The hotspots are already known.

Claude asked who is best qualified to evaluate the source and noted that the best tool to evaluate a well is a down-hole camera which some of the well drilling companies have.

Gary Adams outlined his normal approach for determining the problem. If coliform test positively, he checks piping for dead ends and cross connections and other problems. The well was chlorinated and a surface evaluation of the well site was done. A retest found even higher coliform level and further evaluation determined there was a problem with the well construction. At this point the situation was referred to an engineer.

Peter said that all of the people in the room have expertise in various areas related to determining the problem and the proper solution. The professional engineer has a broad perspective but turns to the appropriate people for help with a specific part of the determination and the solution.

Steve urged the group to move forward to reach a solution. TAC has been working on this topic for several meetings and now is the time to make the decisions needed to move forward.

Alan said he was concerned with the split between systems serving only one single family residence and those serving all other users. There are small public buildings that would be affected if the cost of obtaining a permit is too high.

Gary Adams gave a quick overview of treatment systems for coliform covering the need for a good initial water analysis because you may need to deal with turbidity and other contaminants in order to have effective treatment. UV especially needs clean water to work well.

Tim said that there are turf battles among the various interest groups. However, either the State should run the certification program or certification should not be required. An expensive certification program will not work.

John agreed with Tim's comments. There should be a state run certification for water system designers. Other professionals such as designers and well drillers who have the certification for water systems should also be allowed to design water treatment systems.

Bruce asked how big a problem is it if only professional engineers design systems for buildings other than one single family residence. Alan estimated that there would be 500 projects per year and with the difficulty of finding engineers willing to take this on, it would be a significant issue.

Tim said it can't be limited to professional engineers. People will do the right thing because of the liability if they certify improperly.

Anne asked if there is a way to include people like Gary who do not have a certification but who can do good work.

Regulation of pathogen treatment systems for single family homes on their own individual lots only

Tim said this should be unregulated; it is up to the homeowner.

Gail said that the Health Department opinion is that it should be deregulated and that the homeowner should be provided with information about how to test and how to choose treatment systems if needed. If they want to find the source of the problem they

are referred to well drillers and hydrogeologists. If they want to install treatment they are referred to a list of plumbers/water treatment specialist. Gail talks to 20-30 people per day. Gail noted that when they think the source of contamination may be a neighboring septic system, they consult with an engineer.

Jeff asked what the chances are for a cross-connection with dense development. What if the owner says treat mine and don't worry about the neighbors. Craig noted this can happen with older homes in villages.

Peter said that a professional engineer is not required for just a single family home. The homeowner will watch out for themselves. Lake water systems may be a special category as more expertise is required. With drilled well, leave it up to the homeowner, though there is some concern when the homeowner just goes to Home Depot and gets a system without understanding what is needed to treat his specific problem.

Claude said that he thinks the installation of water treatment systems for single family homes is a proven industry and that regulation would just add costs. Leave it up to the homeowner.

Gary Adams said that there are many people in the industry and most are good. The ones with less skill are the ones who do not participate in training. He has concerns about maintaining credibility in the industry. For instance, he has a customer who has been trying for 7 months to get a permit to add treatment for pathogens. The customer is having a hard time believing a permit is even needed based on information from other companies. He tries to tell the customer that if the competitors will cheat on the need to get a permit, they may cheat on other issues as well. He asked David Swift, Regional Engineer in the Rutland Office, how many permits had been issued and learned that only one permit has been issued. He thinks companies feel pressured to cheat in order to stay in business.

Rodney said that treatment should not be installed unless the source cannot be fixed because, if the well is actually contaminated with pathogens, the treatment system must operate perfectly 100% of the time. Rodney supports regulation of this category.

Laura asked Gail if there is a record of problems with people not running the treatment systems. Gary Adams noted that UV systems can fail, but so can the well casing itself.

John said that individuals can look out for themselves but the multifamily dwellings might be in a different situation.

Steve noted that this issue had been discussed several times before with consensus that SRF pathogen treatment should be deregulated and that he was encouraged that the professional engineers present were in agreement with this position.

Gail noted that she too is concerned about lake water treatment systems. They should have both filtration and disinfection but she is still supportive of letting the homeowner make the decisions while providing the best information for them to use.

Craig, Tim, Alan, and Gary support deregulation. David Loveday agreed that education is very important if homeowners are on their own.

Bruce asked Jeff why he raised the cross-connection issue. Jeff replied that he is concerned about situations where several wells are drawing from the same source. If one well is a pathway for contamination into the aquifer, and instead of fixing the problem treatment is added for only one house, people in the other houses may have a problem without even being aware of it.

Treatment systems for other than one single family residence

Should the addition of treatment that is not required to meet water quality standards be treated differently than in a situation where treatment is required? The groups answer is no.

Anne asked if a maintenance contract should be required. On an 11 to 1 vote the group says a contract should be required. Bruce noted that without a permit the state would have no way to track this for compliance.

Anne said that some process to approve those already doing the work is needed. Some sort of grandfathering process is needed.

Gary said that he had found that some apartment building owners are not very good about keeping up on the maintenance if they are doing it themselves.

Peter said the stormwater approach might work. This requires an annual certification by the homeowner and a periodic inspection by an engineer.

Next meetings

July 22

August 19

September 16

Items prioritized for discussion with high, low, and medium ranking

1. Soil identification vs. perc test **medium**
2. Curtain drain with presumption of effectiveness **high**
3. Revisions to desktop hydro chart **medium**

4. Minimum amount of sand under a mound **high**
5. Grandfathered design flow and conversion of use policy **high**
6. Updating of design flow chart **high**

Executive Committee

John Forcier, Steve Revell, Lance Phelps, Phil Dechert, and Roger Thompson
Alternates – Chris Thompson, Bernie Chenette, Spencer Harris, Jeff Williams

Subcommittees

Hydrogeology - Allison Lowry, Craig Heindel, Dave Cotton and Steve Revell.

Training subcommittee - John Forcier, Roger Thompson, Allison Lowry, Dave Cotton, and Barbara Willis.

Drip Disposal – Roger Thompson, Dave Cotton, Steve Revell, Alan Huizenga

Water treatment systems – Gail Center, Jeff Williams, Rodney Pingree, Dave Cotton, Lance Phelps, and Roger Thompson.